

KHOKHLOV, D.G.; LUGOVYKH, I.V.

Technical methods in sintering manganese concentrates from Polunochnoys deposit carbonate ores. Trudy Inst. met. UFAN SSSR no.7: 89-99 '61. (MIRA 16:6)

(Polnochnoys region--Manganese ores)  
(Polnochnoys region--Carbonates)  
(Sintering)

LUGOVYKH, P.V.

Acclimatization of trees and shrubs in the Urals. Biul. Glav.  
bot. sada no. 34:24-29 '59 (MIRA 13:3)

1. Botanicheskiy sad Ural'skogo filiala AN SSSR,  
(Ural Mountain region--Trees)  
(Ural Mountain region--Shrubs)  
(Plant introduction)

LUGOWSKA, Maria

On the possibility of obtaining sulphur dioxide from indigenous ore.  
Pt. 3. Attempts of direct burning of the ore. Przem chem 40 no.9:  
514-517 S '61.

1. Katedra Technologii Wielkiego Przemyslu Nieorganicznego, Poli-  
Technika Slaska, Gliwice.

LUGOWSKA, Maria

On the possibility of obtaining sulfur dioxide from indigenous ore.  
III. Attempts of direct burning of indigenous ore. Przem chem 40  
no.9:514-517 S '61.

1. Katedra Technologii Wielkiego Przemyslu Nieorganicznego, Politechnika Slaska, [Gliwice].

LUGOWSKA, Maria

Possibilities of obtaining sulphur dioxide from Polish sulphur bearing ores. Pt. 2. Przem chem 40 no.7:383-387 Jl '61.

1. Katedra Technologii Wielkiego Przemyslu Nieorganicznego,  
Politechnika Slaska, Gliwice.

PAWLICKOWSKI, Stefan, prof. dr inz.; LUGOWSKA, Maria, doc. dr inz.;  
PLACZEK, Joachim, mgr inz.; BIALAS, Jozef, inz.

Autogenous grinding of sulfur ore and treatment of the product  
in flash roasting furnaces. Rudy i metale 8 no.4:138-140 '63.

LUGOWSKA, Maria

Sulfur products and balance in its combustion process in  
the presence of gangue. Chemia stocow 8 no.4:363-382 1964.

1. Silesian Technical University, Gliwice.

LUGOWSKI, Antoni; ZONN, Wlodzimierz, prof. dr

Dilettantes and their defense. Problemy 20 no.5:303-304 '64

1. Technical University, Warsaw (for Lugowski).

LUGOWSKI, Czeslaw, mgr. inz.

The program and its realization in the Technological  
Museum. Przegl techn no.45:7 9 N '60.

1. Dyrektor Muzeum Techniki Naczelnej Organizacji  
Technicznej, Warszawa.

JAGER, J.; LUGROVA, O.

The determination of 3,4 benzopyrene with thin-layer chromatography. Cesk. hyg. 10 no.5:319-323 Ja'65.

l. Ustav hygieny, Praha.

L 31400-66 EWT(1) IJP(c)  
ACC NR: AP6021109

SOURCE CODE: CZ/0043/65/000/010/0774/0782

AUTHOR: Jager, Jiri--Yeger, Y. (Engineer; Prague); Lugrova, Olga (Engineer; Prague)

ORG: Institute of Hygiene, Prague (Ustav hygieny)

TITLE: Determination of 3,4-benzopyrene in mixtures using fluorescent spectrography  
at -197°C

SOURCE: Chemicke zvesti, no. 10, 1965, 774-782

TOPIC TAGS: spectrographic analysis, hydrocarbon, low temperature research, heptane,  
fluorescence spectrum

ABSTRACT: Analysis in the presence of other hydrocarbons was investigated. Hydrocarbons normally present in tar fractions containing 3,4-benzopyrene were used, and the concentration of benzopyrene was 0.04, 0.05, and 0.06 micrograms per ml. The study was made at the temperature of liquid nitrogen in a solution of n-heptane. The relative error of the method does not exceed 8%.  
Orig. art. has: 6 figures and 3 tables. [JPRS]

SUB CODE: 07, 20 / SUBM DATE: 28May65 / ORIG REF: 001 / OTH REF: 008  
SOV REF: 009

Card 1/1

LUGS, JAROSLAV

Rucni palne zbrane. Soustavný prehled rucnich palnych zbrani a dejin jejich výroby. (Vyd. 1.) Praha, Nase vojsko. (Dejiny vojenstvi. Rada A, sv. 1)  
(Manual shooting arms; a systematic survey of manual shooting arms and the history of their manufacture. 1st ed. illus., ports., bibl., footnotes, indexes)

Vol. 1. 1956. 401 p.

Vol. 2. 1956. 404 p.

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

LUGACHEV, S.S.

Myelographic changes in mice in Ehrlich ascitic carcinoma  
[with summary in English]. Biul.eksp.biol. i med. 45 no.5:97-103  
(MIRA 11:6)  
My '58

1. Iz laboratorii gistoziologii (zav. - kand.biolog.sciuk V.N.  
Dobrokhoto) Instituta eksperimental'noy biologii (dir. - prof.  
I.N. Mayskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nym  
chlenom AMN SSSR N.N. Zhukovym-Verezhnikovym.

(LEUKOCYTES COUNT, in var. dis.  
exper. Ehrlich ascites carcinoma, (Rus))

(NEOPLASMS, experimental,  
Ehrlich ascites carcinoma, leukocyte count (Rus))

LUGUNOV, A. A. and TODOROV, I. T.

"On the Proof of Dispersion Relations for Inelastic Scattering."  
Nuclear Physics, Vol. 10, No. 5, 1959, 552-563 (No. Holland Publ. Co., Amsterdam)

A derivation of Dispersion Relations for the inelastic process  
 $(p + \pi \rightarrow p' + \pi')$  is presented based on a theorem of analytic continuation.  
The one-nucleon terms are correlated with the amplitudes of simpler processes.

Lab. Theoretical Physics, Joint Inst. Nuclear Research, Dubna, USSR

9(2)

06275  
SOV/107-59-6-39/50

AUTHOR: Lugvin, V.

TITLE: Stabilizing the Operating Conditions of Transistors

PERIODICAL: Radio, 1959, Nr 6, pp 45-47 and p 50 (USSR)

ABSTRACT: The article deals with the problems of temperature stabilization of transistor operation which is not yet adequately covered in literature. It was written for radio amateurs who are engaged in building transistorized devices, and may be considered as a continuation of the article by B. Khokhlov, published in Radio, 1958, Nr 6. Although the conclusions were derived for p-n-p transistors, they may be used to a considerable extent for n-p-n transistors. Further, only grounded-base transistor circuits were considered, but recommendations for stabilized operating conditions may be used for other transistor circuits as well. Concerning the selection of the operating conditions of transistors, the author

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SOV/107-59-6-39/50

Stabilizing the Operating Conditions of Transistors

refers to G. Tsykin's article in Radio, 1955, Nr 10, in which the temperature stabilization was not considered. He briefly discusses the causes of poor temperature stability of transistor circuits. The author explains transistor circuits with a separate bias battery, shown in Figures 6 and 7. The disadvantage of this circuit arrangement, a second battery, may be eliminated by using the circuit shown in Figure 7a. For amateur application the author recommends using negative current feedback. Formulas for calculating circuit elements of a transistorized amplifier are listed. There are 7 sets of circuit diagrams and 2 Soviet references.

Card 2/2

LUGVIN, Vladimir Gavrilovich; POPOV, P.A., red.

[Elements of present-day low-frequency electronics]  
Elementy sovremennoi nizkochastotnoi elektroniki.  
Moskva, Energiia, 1964. 86 p. (Massovaia radio-  
biblioteka, no.559) (MIRA 18:1)

LUGVIN, Vladimir Gavrilovich; POPOV, P.A., red.; LARIONOV, G.Ye.,  
tekhn.red.

[Amateur transistor radio designs] Radioliubitel'skie  
konstruktsii tranzistornykh priemnikov. Moskva, Gos.energ.  
Azd-vo, 1960. 79 p. (Massovaisa radiobiblioteka, no.373).  
(MIRA 15:11)

(Transistor radios)

RUMYANTSEV, Mikhail Mikhaylovich; LUGVIN, V.G., spets. red.;  
GODINER, F.Ye., red.; BLAZHENKOVA, G.I., tekhn. red.

[Pocket radios] Liubitel'skie karmannye priemniki. Mo-  
skva, DOSAAF, 1964. 100 p. (MIRA 17:4)

GORDEYEV, A.V.; LUGVISHCHIK, V.V.

Resin productivity of southern pine species. Gidroliz. i lesokhim.  
prom. 18 no.3:17-18 '65. (MIRA 18:5)

1. Tsentral'nyy nauchno-issledovatel'skiy i proyektnyy institut  
lesokhimicheskoy promyshlennosti.

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720011-6

LUHAN, Jaroslav, dr.; POLASEK, Jan, dr.

Activities of people's committees in the field of labor law.  
Prace mzda 10 no.4:179-183 Ap '62.

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720011-6"

LUHAN, Jaroslav, dr.

Labor law provisions on the performance of public functions,  
civic duties, and other activities in the public interest.  
Prace mzda 13 no.4:182-188 Ap '65.

JIRA, Vladimir, dr.; BERNARD, Frantisek, dr.; URBANEC, Alfons, dr.;  
LUHAN, Jaroslav, dr.; VOZKA, Vladimir, dr.; POLASEK, Jan, dr.;  
PAVLATOVA, Jarmila, dr.; SVATOSOVA, Marie, dr.

Comments on the individual parts of the draft of the Czechoslovak labor code. Prace mzda 11 no.1:15-60 Ja'63  
(MIRA 17:8)

1. Pracovne pravni oddeleni, Ustredni rada odboru ( for Jira, Bernard, Urbanec, Luhan, Vozka, and Polasek).. 2. Pracovne pravni komise, Ustredni rada odboru (for Pavlatova and Svatosova).

LUHAN, Jaroslav, dr.; TYC, Jaroslav, dr.

Material responsibility of workers for accountable values and  
lost instruments. Prace mzda 12 no. 7:321-325 Jl '64.

URBANEC, Alfons, dr.; UHAN, Jaroslav, dr.

Some problems of material liability of workers. Prace mzdá  
12. no. 11-513-517 N '64.

LUHANOVA, Zdenka, Dr.; SIPKOVA, Jaroslava

Clarification of the origin of so-called *Sargentella spiroides*.  
Cesk. epidem. mikrob. imun. 6 no.5:351-352 Sept 57.

1. Ustav hygieny v Praze, red doc. Dr K. Symon.  
(PROTOZOA,  
*Sargentella spiroides* (Cx))

LUHANOVA, Z.

Investigation of the nutrition conditions of children and youth.

p. 163 (VYZIVA LIDU) Vol. 12, no.11, Nov. 1957,  
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,  
March 1958

LUHANOVA, Z.; HRUBY, J.

Effect of controlled feeding on nutritional conditions of children.  
Cesk. pediat. 14 no.8:702-714 Aug 59.

1. Ustav hygieny, Praha, reditel doc. dr. K. Symon.  
(CHILD nutrition & diet)

LUHANOVA, Z.; HRUBY, J.

Some hygienic assumptions in school boarding. p.136

VYZIVA LIDU. (Spolecnost pro racionalni vyzivu)  
Praha, Czechoslovakia, Vol.14, no.9, Sept.1959

Monthly List of East European Accessions (EEAI) LC, Vol.8, no.12  
Dec.1959  
Uncl.

LUHANOVA, Z.

Nutritional status and its concepts. *Cesk. gastroent. vyz.*  
17 no.6:358-361 S '63.

1. Ustav hygieny v Praze, reditel prof. dr. K. Symon.  
(NUTRITION SURVEYS) (ANTHROPOMETRY)

CZECHOSLOVAKIA

LUMANOVA, Z.

Hygiene Institute (Ustav hygieny), Prague

Prague, Ceskoslovenska Hygiena, No 7, 1964, pp 405-413

"The Nutritional State of Commonly Fed High School  
Students."

IUHANOVA, Z.; SIPKOVA, J.

On some indices of natural resistance of the organism.  
Cesk. hyg. 10 no.7:404-412 Ag '65.

1. Ustav hygieny, Praha.

L 38630-66 EWP(e)/EWT(m)/EWP(j) FM/WH

ACC NR: AP6008801

SOURCE CODE: UR/0021/65/000/010/1359/1363

AUTHOR: Parkhomenko, M. P. — Parkhomenko, M. A.; Luhovs'ka, Ye. S. — Lugovskaya, Ye. S.; — Tresvyats'kyy, S. H. — Tresvyatskiy, S. G.

ORG: Institute of Problems in the Science of Materials, AN URSR (Instytut problem materialoznavstva AN URSR)

TITLE: New synthetic minerals of the mica group

SOURCE: AN UkrRSR. Dopovidi, no. 10, 1965, 1359-1363

TOPIC TAGS: cesium mineral, rubidium mineral, mica, synthetic material

ABSTRACT: Previously, mica compositions were successfully synthesized in which the potassium ions are completely replaced by lithium, strontium, sodium and barium. In this experiment the potassium ions are completely replaced by rubidium and cesium. All previous attempts to obtain such replacement have proved unsuccessful for the reason that synthetic mica  $\text{CsMg}_3[\text{AlSi}_3\text{O}_1\text{O}_2]\text{F}_2$  is unstable at the melting point and decomposes at  $1340^\circ\text{C}$  to form  $\text{CsAlSi}_2\text{O}_6$ . This effect was eliminated by using cesium and rubidium fluorides as charge components and introducing cesium and rubidium ions into the mica mixture. Chemically pure magnesium fluoride is used in this experiment. The resulting synthetic mica bars, with formulas  $\text{RbMg}_3(\text{AlSi}_3\text{O}_{10})\text{F}_2$  and  $\text{CsMg}_3(\text{AlSi}_3\text{O}_{10})\text{F}_2$ , are soft, flexible and somewhat lustrous. The synthetic mica crystallizes in the form of

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P1

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L 38630-66

ACC NR: AP6008801

basaltic or hexagonal plates. X-ray structural analysis showed that cesium and rubidium synthetic micas belong to the group of synthetic fluoromicas of the phlogopite type. Orig. art. has: 2 figures, 2 tables.

SUB CODE: 11/ SUBM DATE: 08Sep64/ ORIG REF: 002/ OTH REF: 001

Card 2/2 5m

LUHT, F.

The reserves for the reduction of the prime cost of milk and meat on state farms.  
p. 42

SOTSIKTLIK POLLUMJANDUS. POLLUMJANDUS MINISTERIUM.  
Tallin, Hungary. No. 1, 1958

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 11  
November 1959.

Uncl.

COUNTRY : YUGOSLAVIA  
CATEGORY : General Biology.  
Physical and Chemical Biology. B  
ABS. JOUR. : RZhBiol., No. 5, 1959, No. 18975  
AUTHOR : Lui, Ante  
INST. : Croatian Nature Society.  
TITLE : The Photodynamic Effect of Some Sensitizers  
upon Paramaecium caudatum and P. bursaria.  
ORIG. PUB. : Glasnik biol. sek Hrvatsko prirodoslo. drustvo,  
1953 (1955), Ser. 2 B, 7, 237-239  
ABSTRACT : The effect of strong photosensitizers of  
Bengal pink, eosin and primulin upon  
Paramaecium caudatum and P. bursaria proved  
to be the same within the limits of the visible  
and ultra-violet (UV) spectra as the sensitizer  
of pinaeryptol or distilled water. When  
intensity is the same, the short-wave ultra-  
violet radiation and long-wave radiation with  
admixture of visible light produce quanti-  
tatively the same effect although it should

CARD:

1/2

2

LUI, Ante

Photobiological sensitization of the developmental stages  
of liver fluke (*Fasciola hepatica L.*). Pt.1. Biol glas 15 no.2:  
109-113 '62.

1. Clan Urednistva, "Biološki glavnik. Periodicum biologorum".  
Institute of Biology of the University of Zagreb.

LUI, N.I.

Determination of fluorine in fluorites by amperometric titration  
of fluoride with lead nitrate. Inform. abor. VSEGEI no.18:47-52  
'59. (MIRA 13:11)  
(Fluorine--Analysis) (Fluorite)

LUIC, R.

Yugoslavia (430)

Agriculture-Plant and Animal Industry

Estimation of the amount of material in  
torrential waters according to the Herheoulidze-  
Stiny formula. p. 201. SUMANSKI LIST. Vol 75,  
No 5, May 1951.

East European Accessions List. Library of  
Congress. Vol 2, No 3, March 1953.

UNCLASSIFIED

LUIGA, P.; LIPPMAA, E.

Use of the thermal pulse method in preparative gas chromatography.  
Izv. AN Est. SSR. Ser.fiz.-mat.i tekhn.nauk 14 no.2:305-306 '65.  
(MIRA 19:1)

1. Institut kibernetiki AN Estonской ССР. Submitted March 17,  
1965.

L 19800-65 ENT(m)/AF(c)/EN(j)/T Pe-4/Pr-4 SSD/SSD(c)/ASD(a)-5/ESD(t)

REI  
ACCESSION NR: AP5003609

s/0190/64/006/007/1238/1243

11  
26  
B

AUTHOR: Birshteyn, T. M.; Luizi, P. L.

TITLE: Conformation of optically active isotactic macromolecules

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 6, no. 7, 1964, 1238-1243

TOPIC TAGS: macromolecular chemistry, optic property

ABSTRACT: The article describes a theoretical investigation of the conformational structure of isotactic poly-alpha-olefins, containing asymmetric atoms in the side chain. It is shown that the small difference in free energies for the conformations of the monomer units corresponding to right and left helices is sufficient to account for the substantial prevalence of helical segments of one sign of spiralization in statistically coiled macromolecules. Such prevalence explains the high optical activity of poly-alpha-olefins in solution, observed by Zino et al. Calculation of the end-to-end distances of such molecules shows that very high optical activity is compatible with substantial thermodynamic flexibility of the

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L 19800

ACCESSION NR: AP5003609

molecules, since the molecular dimensions are not sensitive to redistribution of the monomer units between the right and left helices. Orig. art. has 17 forms. and 3 graphs.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute of High-Molecular Compounds, AN SSSR)

SUBMITTED: 25Jul63

ENCL: 00

SUB CODE: OC, OP

NO REF Sov: 011

OTHER: 012

JPRS

Card 2/2

LUTZ, A.I.

25(2)

PHASE I BOOK EXPLOITATION 507/2223

Konferentsiya po voprosam racheta, konstruiraniyu i issledovaniyu subchastichnykh peredach 1 pervykh gribkov svyaz yu. Odessa, 1957  
 Rachet, konstruiraniye i issledovaniye peredach: trudy konferentsii. [tom 2] (Design, Construction, and Analysis of Transmissions). Transactions of a Conference on Problems in Design, Construction, and Analysis of Gears and Flexible Transmissions, Vol. 2) [Odessa] Odesskii politechn. in-t, 1958. 94 p. 3,000 copies printed.

Sponsoring Agencies: Odesskii politechnicheskii institut, and Nauchno-tekhnicheskoe obshchestvo mashinostroitelei' noy pravlenii. Odesskoye oblastnoye pravleniye.

Ed.: I.P. Mikhaylov, Ingeneer, Tech. Ed.: A.R. Koniassarenko  
 Editorial Board: L.S. Borovich, Candidate of Technical Sciences, N.D. Belovarov, Engineer, M.D. Genkin, Candidate of Technical Sciences, K.I. Zablonitsky, Candidate of Technical Sciences (Rep. Sci.), V.V. Zaytsev, Candidate of Technical Sciences, Ya.G. Klyushnikov, Candidate of Technical Sciences, V.M. Kurnatov, Doctor of Technical Sciences, V.P. Matsev, Candidate of Technical Sciences, M.J. Polotskiy, Candidate of Technical Sciences, and L.B. Svirskiy, Candidate of Technical Sciences.

PURPOSE: The book is intended for engineers and technicians working in the field of transmissions.

COVERAGE: This second volume contains articles on variable-speed drives, flexible shafts, wire-rope V-drive, hook-joint and roller chains, and friction gears. Theoretical and design problems are presented in the first volume. No personalities are mentioned. References follow several of the articles.

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Abramskiy, A.A. Friction Generated From Elastic Belts on Cylindrical Surface	3
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Maltsev, V.P., and A.I. Lutin. Investigation of Uniformity in Rotation of the Driver-Driven Impulse Variable-speed Drive	13
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Krolevets, M.S. Wire-Rope V-drive	
This drive employs metallic wedge blocks secured to a wire rope. It operates on the same principle as a V-belt drive. The design and construction is discussed. The author states that experiments confirm the reliability, long life, and advantages of this drive over V-belt drive.	
Musatov, Yu. V. Investigation of Wear Resistance and Service Life of Hook-Joint Chain for Grain Combines	45
Field and laboratory tests of sprockets and chains with cast and forged links are described. The author proposes that recommended standards for determining wear be applied to all hook-joint chains used in agricultural machinery.	

"APPROVED FOR RELEASE: 04/03/2001

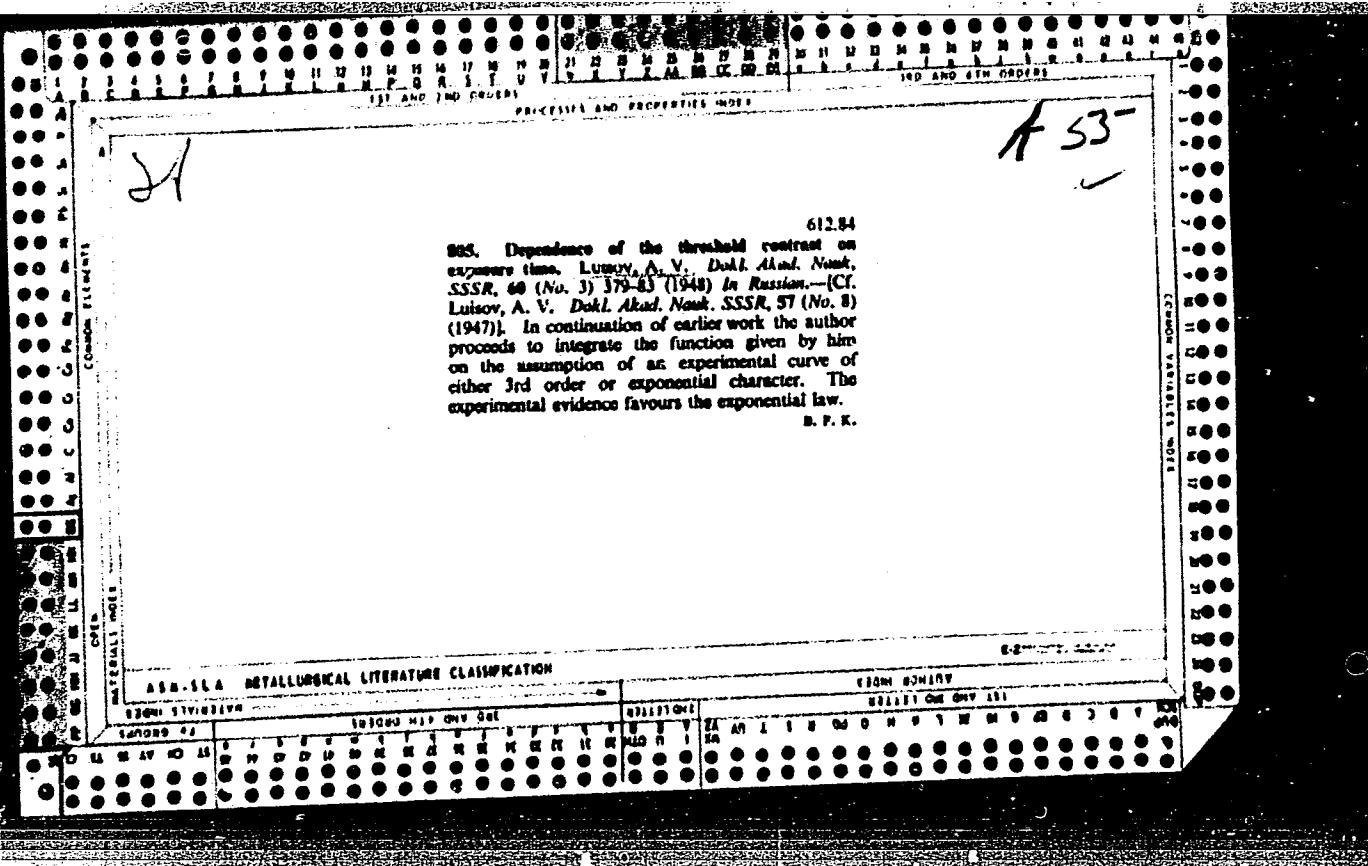
CIA-RDP86-00513R001030720011-6

LUIZOV, A. V.

"Visibility of Objects in Their Dependence on the Time of Exposure," Dokl. Akad. Nauk SSSR, 57, No.8, 1947

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720011-6"



LUIZOV, A. V.

"Calculation of Discernible Brightness," Dokl. AN SSSR, 63, No.1, 1948

State Optical Inst.

LUIZOV, A.V.

Luizov, A.V. - "Daylight lamps," Fizika v shkole, 1949, No. 1, p. 8-22,  
Bibliog: 10 items

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949.)

LUIZOV, A. V.

USSR/Physics  
Optics  
Photography

Apr 49

"The Three-Dimensional Cinema," A. V. Luizov, 9 pp

"Priroda" No 4

Although problem is difficult, author considers it to be worth while due to the great improvement possible over flat motion pictures. Describes stereoscopic vision, the stereoscope, stereo-projection, and stereo-motion pictures with glasses. Discusses grating method and perspective grating developed by S. P. Ivanov. Gives technical

57/49T107

USSR/Physics (Contd) Apr 49

details on the first mass-showing of stereo-films at Kino "Moscow". Describes shortcomings which prevent widespread use of three-dimensional movies. Describes Ivanov's accomplishments. States technical problems which remain.

57/49T107

LUTZOV, A. V.

24281 LUTZOV, A. V. Vliyaniye vremenii ekspozitsii na vidimost' ob'ektov. Problemy fiziolog. optiki. T. VII, 1949, s. 57-68. - Bibliogr: 11 Nasv.

SO: Letopis, No. 32, 1949.

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720011-6

LUIZOV, A. V.

"Fluorescent Lamps," Priroda, No.8, 1949

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720011-6"

LUIZOV, A. V.

PA 149T98

USSR/Physics - Optics, Physiological 21 Sep '49  
Visual Studies

"A New Method of Determining the Effective Time  
During Which Visual Impressions Can Be Retained,  
A. V. Luirov, 3 pp

"Dok Ak Nauk SSSR" Vol LXVIII, No 3

Previous methods of determining duration of  
visual impression in space were based on obser-  
vation of a small dark mark on a large bright  
background, when changes in brightness occurred  
only in the space occupied by the mark. In new  
method of determination by time, test field was

149T98

USSR/Physics - Optics, Physiological 21 Sep 49  
(Contd)

a single bright field and rapid changes affected  
the whole illuminated part of the retina. At an  
angular diameter of 11 in, in the former case,  
the greater part of the retina was illuminated,  
the whole time by an unchanged brightness; in the  
latter, a single light spot, the test field, was  
seen in darkness. It is therefore not surprising  
that with a brightness of 100 asb and a diameter  
of 11 in, effective time of retaining a visual  
impression equaled 0.05 sec by early methods and  
0.03 sec by new method. Submitted by Acad. A. N.  
Terentin 12 Jul 49.

149T98

LUYZOV, A. V.

PA-165T62

USSR/Physics - Light, Sensitivity to 11 Feb 50  
BIOLOGY - Eye

"Sensitivity of the Eye to Time Changes in Brightness," A. V. Luyzov

"Dok Ak Nauk SSSR" Vol LXX, No 5, pp 829-831

On completely dark background, observer sees circular spot of light with angular diameter  $\alpha$  and brightness  $B_0$ . At given moment, brightness of spot changes instantaneously to new value  $B$  and remains constant at this level. Designating  $dB = B_0 - B$ , contrast in time is

165T62

USSR/Physics - Light, Sensitivity to 11 Feb 50  
(Contd)

defined by formula  $A = dB/B_0$ . Threshold contrast in time  $\alpha$  is defined as least value of contrast  $A$  perceptible to eye. Five observers were used to establish dependency of threshold contrast in time  $\alpha$  upon brightness  $B$  and angular diameter  $\alpha$  of test field. Submitted 12 Dec 49 by Acad A. A. Lebedev.

165T62

LUIZOV, A. V.

USSR/Radio - Television, Color

Jun 51

"Color Television," A. V. Luizov

"Priroda" No 6, pp 10-22

Describes 1st system of color television (3 discs), which was proposed by Adamian in 1925. Also describes the dot-sequential system. Considers that the basic difficulty in the transition to color television lies in the need for further increasing the modulating frequency.

222T24

LUIZOV, A.V.

V nedrakh veshchestva. Ocherk razvitiia atomisticheskikh vzgliadov na mir [In the heart of matter. Sketch on the development of atomistic theories about the world]. Lenizdat, 1952. 148 p.

SC: Monthly List of Russian Accessions, Vol. 6, No. 2, May 1953

LUYZOV, A.

Optics, Physiological

"without eye glasses." Tekhn.molcd., 20, No. 8, 1952

MONTHLY LIST OF RUSSIAN ACCESSIONS. Library of Congress, December 1952. UNCLASSIFIED.

1. LUIZOV, A. V.; PONIZOVSKIY, L. B.
2. USSR (600)
4. Ponizovskiy, L. B.
7. Book on the history of the atomic theory ("In the nidi of matter." A. V. Luizov, L. B. Ponizovskiy. Reviewed by M. I. Radovskiy.) Priroda, 42, no. 5, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

USSR

612.843.612

1941. Perceptiles of brief variations in brightness.  
A. V. Luriaev. Dokl. Akad. Nauk SSSR, 91, No. 5,  
1003-5 (1953) In Russian. English translation, U.S.  
National Sci. Found. NSF-ir-199.

Flash-contrast  $A$  for white light was measured by  
four observers as a function of the flashing time  $t$ .  
The data  $A$  obey a  $\log t$  relation better than a linear  
one.

R. A. WEALE

BB OPW

LUIZOV, A.V.

USSR/Physics - Biophysics

Card 1/2 : Pub. 22 - 14/44

Authors : Luizov, A. V.

Title : Dependence of the visible luster of sparks on duration of the latter

Periodical : Dok. AN SSSR 98/1, 55-57, Sep 1, 1954

Abstract : An experimental study of the dependence of the visible glow of sparks on their duration is described and the following theoretical formula, based on the experiments, was derived:

$$E\tau = S(\vartheta + \tau)$$

where  $E$  is the intensity of a flash,  $\tau$  is its duration.  $S$  is its visible glow and  $\vartheta$  (according to Hempton)

$$\vartheta = \left( \frac{0.0098}{S} \right) 0.81$$

Institution : .....

Presented by : Academician A. N. Terenin, April 12, 1954

Periodical : Dok. AN SSSR 92/1, 55-57, Sep 1, 1954

Card 2/2 : Pub. 22 - 14/44

Abstract : The S is expressed in microluxes and  $\delta$  in seconds. Five references (1911-1938). Table; graph.

Threshold duration of interruption of a point source of light.  
K. N. Bulanova and A. V. Luirov *C. R. Acad. Sci. U.R.S.S.*, 1954,  
68, 205-208.—Measurements of the least visually detectable time  
of interruption of a foveally fixated luminous point at brightnesses  
from 0.021 to 183 microlux and interruption frequencies [2-60]  
min. Values are between 0.0077 and 0.0386 sec., lower at high than  
low brightness, and lower at 30 interruptions/min. than at faster  
or slower rates. (Russian) G. S. BRINDLEY.

Translation D-177062, 29 Nov 54

LUIZOV, A.V., KUZNETSOVA, Iu.M.

Relation of threshold flash to its duration in peripheral vision.  
Dokl.AN SSSR 103 no.5:819-821 Ag '55. (MLRA 9:1)

1.Predstavлено академиком А.Н.Tereninym.  
(VISION,  
relation of threshold flash to its duration)

BULANOVA, K.N.; LUIZOV, A.V.

Influence of certain factors on the visibility of flashlights in navigation. Dokl. AN SSSR 109 no.3:511-514 J1 '56. (MLRA 9:10)

1.Predstavлено академиком А.Н. Терениным.  
(OPTICS, PHYSIOLOGICAL.)

LUIZOV, A.V.; BULANOVA, K.N.

~~\_\_\_\_\_~~  
Effective brilliance depending on background brightness. Svetotekhnika  
3 no.7:17-19 J1 '57. (MLRA 10:8)

1.Gosudarstvennyy opticheskiy institut.  
(Photometry)

IUIZOV,A.V., Doc Phys-Math Sci--(disc) "Inertia of vision" [Eng], 1953.  
28 pp (State Order of Lenin Optical Inst im S.I.Vavilova), 150 copies.  
List of author's works at end of text (23 titles) EL, 48-50,101)

-/-

LUIZOV, A.V., kand.fiz.-mat. nauk; BULANOVA, K.N., inzh.

Threshold brilliance depending on dimensions of the source and flash duration. Svetotekhnika 4 no.10:17-20 0 '58. (MIRA 11:10)

1.Gosudarstvennyy opticheskiy institut.  
(Light)

LUIZOV, Andrey Vladimirovich for Doc Phys Math Sci of the basis of dissertation  
defended 6 Feb 59 in Council of State Order of Lenin Optical Inst im Vavilov,  
entitled "Inertia of Vision." (BLViSSO USSR, 1-61, 25)

-216

LUIZOV, A.V., kand.fiz.-mat.nauk; BULANOVA, K.N., inzh.

Threshold difference in the brillance of consecutive flashes.  
Svetotekhnika 5 · no.7:22-25 J1 '59. (MIRA 12:9)  
(Lightships)

MESHKOV, Vladimir Vasil'yevich; GUREVICH, M.M., prof., doktor tekhn.  
nauk, rezensent; LUIZOV, A.V., doktor fiz.-matem.nauk,  
retronzent; ASHKEHAZI, G.I., inzh., red.; LARIONOV, G.Ye.,  
tehn.red.

[Principles of lighting engineering] Osnovy svetotekhniki.  
Moskva, Gos.energ.izd-vo. Pt.2. [Physiological optics and  
colorimetry] Fiziologicheskaja optika i kolorimetrija.  
1961. 416 p. (MIRA 14:4)  
(Colorimetry) (Optics)

BR

PHASE I BOOK EXPLOITATION

sov/5945

Luizov, Andrey Vladimirovich

Inertsiya zreniya (Persistence of Vision) Moscow, Oborongiz, 1961. 247 p.  
Errata slip inserted. 4025 copies printed.

Reviewers: N. G. Boldyrev, Doctor of Technical Sciences, V. V. Novikov, Professor, and V. V. Sharonov, Doctor of Physics and Mathematics; Ed.: G. G. Gordon, Engineer; Ed. of Publishing House: L.I. Sheynfayn; Tech. Ed.: V. P. Rozhin; Managing Ed.: A.S. Zaymovskaya, Engineer.

PURPOSE: This book is intended for engineers and scientific workers concerned with flare signaling, observation instruments, radiolocation, and television and motion picture technique. It may also be useful to readers who are interested in visual function from the standpoint of the theory of information and cybernetics.

COVERAGE: The book contains unified data on the persistence of vision and includes a number of formulas, tables, and graphs for practical estimations of object visibility. Research was based on the visibility of objects and sources of light with respect to the duration of their visibility. These investigations were

Card 1/1

Persistence of Vision

SOV/5945

initiated by Academician A. A. Lebedev and subsequently continued by Professor L.N. Gassovskiy. The author obtained a number of valuable opinions from N.I. Pinegin. K.N. Bulanova collaborated in some of the investigations mentioned in the book. Numerous involved measurements of visual thresholds were made by E.A. Sapotnitskaya. There are 245 references: 107 Soviet, 65 English, 36 French, 32 German, 3 Scandinavian, and 2 Italian.

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2. What persistence of vision means	8
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Card 2/6

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720011-6

LUIZOV, A.V.

Image formed on the retina and its transformation in the visual system.  
Usp.nauch.fot. 10:14,8-155 '64. (MIRA 17:10)

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720011-6"

KAGAN, Yu.M.; LUIZOVA, L.A.; LYAGUSHCHENKO, R.I.; KHAKHAYEV, A.D.

Excitation of inert gases in a positive d-c discharge column  
at medium pressures. Part 3: Upper levels of neon and argon.  
Opt. i spektr. 15 no.4:446-452 O '63. (MIRA 16:11)

ACCESSION NR: AP4009477

S/0051/63/015/006/0835/0837

AUTHOR: Luizova, L.A.

TITLE: Determination of the concentration of charged particles from the broadening of the H<sub>B</sub> line in low pressure discharges

SOURCE: Optika i spektroskopiya, v.15, no.6, 1963, 835-837

TOPIC TAGS: ion concentration, ion concentration measurement, plasma diagnosis, Holtsmark broadening, Doppler broadening, hydrogen line broadening, low pressure discharge

ABSTRACT: Under certain conditions the theory of spectrum line broadening developed by Holtsmark has been used successfully for determining the concentration of charged particles in plasma. Usually the determinations are made with reference to hydrogen lines for ion concentrations in the range from  $10^{14}$  to  $10^{18}$  particles per cm<sup>3</sup>. At lower concentrations difficulties are encountered because one cannot neglect Doppler broadening and because some of the assumptions upon which the Holtsmark theory is based no longer hold rigorously. In the present work the concentration of charged particles is a dc discharge in neon at pressure from 5 to 40 mm Hg

Card 1/2

AP4009477

and currents from 0.2 to 1 A were determined from the broadening of the  $H_B$  line, and the results compared with the values obtained by the two-probe procedure (V.M. Zakharova, Yu.M.Kagan, K.S.Mustafin and V.I.Perel', ZhTF, 30, 442, 1960). The discharge was realized in a 5 mm diameter, 130 mm long glass tube. About 1% hydrogen was added to the neon. Observation was perpendicular to the axis of the tube. The contours of the  $H_B$  line were measured by means of a Fabry-Perot etalon crossed with an ISP-51 spectrograph. Comparison of the tabulated results shows that the values of the ion concentrations measured by the two procedures agree for concentrations greater than  $1.5 \times 10^{13} \text{ cm}^{-3}$ . In the range of lower concentrations the hydrogen line method yields excessively high values and hence should not be used. "The author is grateful to S.E.Frish for guidance in the work." Orig.art.has: 1 figure and 1 table.

ASSOCIATION: none

SUBMITTED: 23May63

DATE ACQ: 03Jan64

ENCL: 00

SUB CODE: PH

NR REF Sov: 006

OTHER: 004

Card 2/2

L 51309-65 SEC(b)-2/SEC(l)/SEC(k)-2/EWA(s)/EWA(k)/EWP(e)/EWT(l)/EWT(m)/  
SEC(l)/FBD/EWP(l)/EWP(b)/T/EWA(w)-2/EWP(e) Pf-4/Pt-4/P1-4/Pm-4/Pn-4/Po-4/  
Pq-4/Poh SCTB/IJP(c) WG/WH

ACCESSION NR: AP5013854

UR/0368/65/002/004/0295/0298

AUTHOR: Vanyukov, M. P.; Isayenko, V. I.; Luizova, L. A.; Shorokhov,  
O. A.TITLE: Thermal distortion in glass specimens producing stimulated  
emission 72

SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 4, 1965, 295-298

TOPIC TAGS: <sup>25</sup> laser, <sup>15</sup> glass laser, neodymium glass laser, laser dis-  
tortion, beam divergence, thermal distortion, water cooled laser

ABSTRACT: Inhomogeneities created during the flash pulse of the pump lamps in neodymium laser glass were investigated in relation to their effect upon the output beam divergence. A Mach-Zender interferometer was used as the basic comparator between pumped and unpumped glass. Rods up to 1 cm in diameter were placed in elliptic reflectors with straight flash lamps. Larger rods were equipped with complex units incorporating four straight flash lamps and elliptic reflectors allowing for the large variations in pumping conditions brought about by filling the space between the rod and the lamps with water. Inter-  
Card 1/3

L 51309-65

ACCESSION NR: AP5013854

O

ference photographs show thermal distortion of the rods at intervals ranging from 400  $\mu$ sec to 5 minutes after the start of the pumping pulse. If the nature of the thermal distortion indicates that the rod heats up more in the center than near its periphery, it is considered the equivalent of a positive lens, and vice versa. For air-cooled rods, a 200-250 joule/cm<sup>3</sup> pumping density resulted in a center-edge path difference of one wavelength per 10 cm of rod length. The distortion produced a positive lens. For watercooled rods, a negative lens was produced. Generation begun 400  $\mu$ sec after the start of the pumping pulse in a rod 8 mm in diameter was accompanied by a divergence angle of 1'; toward the end of generation, the angle reached 2'. A rod 2 cm in diameter increased the divergence angle from 40 to 80". Distortion due to the action of flash lamps upon the air in this interferometer was found to be much larger than that occurring directly in the laser rod. The air heating distortion, however, was practically eliminated by ordinary glass shielding tubes inserted on the ends of the rod. Orig. art. has "4 figures." [SK]

ASSOCIATION: none

PHOTO

Card 2/3

L-51309-65

ACCESSION NR: AP5013854

SUBMITTED: 21Sep64

ENCL: 00

SUB CODE: EC

NO REF Sov: 003

OTHER: 001

ATD PRESS: 4016

Card #3/3

L 1730-66 EWP(e)/EWT(m)/EPF(c)/EWP(i)/EWP(t)/EWP(b) IJP(c) JD/WH

ACCESSION NR: AP5016044

UR/0368/65/002/005/0415/0417  
621.378.329

AUTHOR: Vanyukov, M. P.; Isayenko, V. I.; Lutizova, L. A.; Shorokhov, O. A.

TITLE: Effect of resonator mirror alignment on generation conditions in neodymium-activated glass 15

SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 5, 1965, 415-417

TOPIC TAGS: laser optics, neodymium laser, glass laser, mirror alignment

ABSTRACT: The effect of resonator mirror alignment on energy, emission threshold, angular distribution, end distribution, and coherence in specimens of neodymium-activated glass was investigated. Glass specimens 8,10, and 15 mm in diameter and 67-120 mm long were placed in the resonator with 90% reflective dielectric-coated mirrors set 1 m apart. The maximum energy output from the laser was 2-3 joules. It was found that misalignment of one of the external mirrors reduced the emitted energy, and increased the emission threshold while the pumping energy remained constant. For misalignment of less than 15°, there was no change in angular distribution within the experimental error. At greater misalignment, the angular dis-

Card 1/2

L 1730-66

ACCESSION NR: AP5016044

tribution becomes asymmetric. Strong pumping produces even illumination over the entire end of a neodymium rod when alignment is perfect. When misalignment reaches 20-30°, bands appear which coincide with the axis of rotation of the mirror. The interference pattern was not disturbed by misalignment, which indicates that coherence is preserved. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 21Sep64

ENCL: 00

SUB CODE: EC, OP

NO REF Sov: 000

OTHER: 003

Card 2/2

L 26947-65 EWC(j)/EWA(k)/FBD/EWT(l)/EWP(e)/EWT(m)/EEC(k)-2/EEC(t)/T/EWP(t)/  
EEC(b)-2/EWP(k)/EWP(b)/EWA(m)-2/EWA(h) Pf-4/Pi-4/Pl-4/Pn-4/Po-4/Pq-4/Peb  
IJF(c) JHB/WH/WG/JD/JG

ACCESSION NR: AP5004365

S/0056/65/048/001/0003/0006

AUTHOR: Vanyukov, M. P.; Isayenko, V. I.; Luizova, L. A.;  
Shorokhov, O. A.

TITLE: Excitation of additional nonaxial modes of stimulated emission

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48,  
no. 1, 1965, 3-6

TOPIC TAGS: nonaxial mode, mode excitation, ruby laser

ABSTRACT: Data are presented on the excitation of nonaxial radiation due to inclination of the lasing material with respect to the resonator axis. The specimens consisted of neodymium-doped glass rods, 8 or 10 mm in diameter and 67 or 120 mm long, with polished ends. These were placed in a resonator (at various angles to its axis) with plane, dielectric-coated external mirrors. The coefficients of reflection of the latter were 80% and 98.5% and their surfaces, set 1 or 1.5 m apart, were polished with an accuracy up to  $0.1 \lambda$ . The deviation of emitted radiation from the axial path, due to the optical inhomogeneities of the specimens, did not exceed  $0.1-0.5 \lambda$ . The

Card 1/2

L 26947-65

ACCESSION NR: AP5004365

specimens were pumped at 1.5 times the threshold energy. Experimental results indicate that for a well-aligned specimen the emission is in the axial direction with a divergence of 1-1.5°. At angles from 40° to 2°, in addition to the central spot, two additional spots appear on each side in the inclined plane of the specimen. The angle between the additional spots is independent of the specimen size, pumping energy, and the angle of misalignment. The appearance of additional spots is due to the same mechanism which is responsible for the formation of Fabry-Perot rings in a well-aligned resonator. The complex type of mode in a non-ideal resonator can be considered, in both cases, as a combination of the axial and non-axial modes in an ideal resonator. Orig. art. has: 3 figures. [YK]

ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S. I. Vavilova  
(State Optical Institute)

SUBMITTED: 06Feb64

ENCL: 00

SUB CODE: EC

NO REF SOV: 001

OTHER: 004

ATD PRESS: 3189

Card 2/2

L 34850-66 FBD/EWT(1)/EWP(e)/EWT(m)/EBC(k)-2/T/EWP(k) IJP(c) WG/WII  
ACC NR: AP6018438 SOURCE CODE: UR/0051/66/020/006/0963/0969

AUTHOR: Vanyukov, M. P.; Isayenko, V. I.; Luizova, L. A.; Shorokhov, O. A.

ORG: none

TITLE: Losses in a resonator when the stimulated emission spectrum of Nd<sup>3+</sup> in glass is narrowed

SOURCE: Optika i spektroskopiya, v. 20, no. 6, 1966, 963-969

TOPIC TAGS: laser emission, emission spectrum, neodymium, interferometer, *RESONATOR*,  
*LINE NARROWING*

ABSTRACT: The results of a study of the losses introduced by a Fabry-Perot interferometer to the intensity of the stimulated emission of a neodymium glass laser are presented. The spectral emission band is narrowed by introducing a selective system, in the form of an interferometer, into the resonator. The experimental equipment is illustrated and described in detail. The results indicate that the emission spectrum is significantly narrowed as the coefficient of reflection of the plate is increased (1 to 2 Å at 60 to 80% reflectivity). When the coefficient of reflection is low, the energy generated is 70% that obtained without selection and remains so until reflection reaches 80%, whereupon it drops rapidly. Losses due to various instrument components are described and their respective magnitudes estimated. Orig. art. has: 3 formulas, 6 figures. [14]

SUB CODE: 20/ SUBM DATE: 20Mar65/ ORIG REF: 006/ OTH REF: 004  
ATD PRESS: 5031 UDC: 621.375.9:535(206.1)

Card 1/1

L 41046-65

ACC NR: AP6018450 FBD/EWF(1)/EEC(k)-2 SOURCE CODE: UR/0051/66/020/006/1076/1078  
T/EWP(k) IJP(c) JGS/WG

AUTHOR: Luizova, L. A.; Shorokhov, O. A.

ORG: none

50  
B

TITLE: The use of diffraction through a slit to plot a characteristic curve for photographic emulsion

SOURCE: Optika i spektroskopiya, v. 20, no. 6, 1966, 1076-1078

TOPIC TAGS: laser detector, laser photography, laser R and D, photographic emulsion

ABSTRACT: The authors describe a method of using interference patterns on a photograph in the study of laser radiation. The intensity distribution in a pulsed laser beam can be assessed by photometry of beam photographs. The principal difficulty lies in the lack of a suitable density standard. A step attenuator or a graduated wedge is difficult to construct using substitute light sources owing to the lack of spectral similarity to laser emission and to deviation of pulsed laser radiation from the reciprocity law. The laser source itself cannot be utilized because of nonuniform spatial intensity distribution in the beam. The schematic of an optical setup to produce an interference pattern based on the highly directional laser beam is shown. The density distribution in this diffraction pattern has a fixed relation to the system geometry and the wavelength of the laser. The laser illuminates a photographic film through a

UDC: 535.417 : 535.243.3

Card 1/2

L 41046-45

ACC NR: AP6018450

slit and a lens. The film is located in the focal plane of the lens. A diffraction pattern is generated at the film plane. This pattern may be utilized as a reference for measuring density in photographs of laser emission. Using this setup, the optimal exposure region can be selected with greater ease. Orig. art. has: 1 figure.

14/  
SUB CODE: 20/ SUBM DATE: 28Jul65/ ORIG REF: 003

Card 2/2 - 10

LUJANSCHI, Petre; ACIOBANITEI, Constantin; POPESCU, N., corespondent

Preparations for the 1965 production. Constr Buc 16 no.779:1 12 D '64.

1. Assistant Chief Engineer, Regional Trusts for Housing  
Construction, Bacau (for Aciobanitei).

LUK, A., vrach-nevropatolog

At the control board of the brain. Tekh. mol. 31 no.8:  
33-34 '63. (MIRA 16:11)

1. Sotrudnik Instituta kibernetiki AN UkrSSR.

\*

LUK, A.N.

Rheumatic meningoencephalitis as a complication of surgical treatment of acquired heart defects. Zhur. nevr. i psikh. 63 no.10:1449-1452 '63. (MIRA 17:5)

1. Klinika serdechnoy khirurgii (zav. - prof. N.M. Amosov) Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza i grudnoy khirurgii (dir. A.S. Mamolat), Kiev.

LUK, Aleksandr Naumovich; FAYNBOYM, I.B., red.; RAKITIN, I.T.,  
tekhn. red.

[Information and memory] Informatsiia i pamiat'. Moskva,  
Izd-vo "Znanie," 1963. 23 p. (Novoe v zhizni, nauke,  
tekhnike. IX Seriia: Fizika i khimiia, no.22)  
(MIRA 17:1)

LUK, Aleksandr Naumovich; MARTYNENKO, L.I., red.

[Memory, cybernetics, and thought] Pam'iat', kibernetika,  
myslennia. Kyiv, Naukova dumka, 1964. 82 p.  
(MIRA 17:9)

LUK, Aleksandr Naumovich; MARTYVENKO, L.I., red.

[Memory, cybernetics, and thinking] Pamiat', kiberne-  
tyka, myslennia. Kyiv, Naukov dumka, 1964. 82 p.  
(MIRA 18:1)

LUK, L.N.

Wave impedance of a nonsymmetrical plane line with a round wire.  
Dokl. AN BSSR 9 no.7:460-462 Jl '65. (MIRA 18:9)

1. Laboratoriya Spetsial'nogo konstruktorskogo byuro Minskogo  
radiozavoda.

L 14942-66 EWT(d)/EWP(1) IJP(c) BB/GG  
ACC NR: AP5025246

SOURCE CODE: UR/0026/65/000/009/0045/0050

AUTHOR: Golovan', E. T.; Luk, A. N.; Starinets, V. S.

ORG: Institute of Cybernetics AN UkrSSR, Kiev (Institut kibernetiki AN UkrSSR)

TITLE: Simulation of some properties of memory 16c, 44

SOURCE: Priroda, no. 9, 1965, 45-50

TOPIC TAGS: bionics, simulation, computer memory, physiology, cybernetics

ABSTRACT: The authors consider the various physiological aspects of random access to information in the human memory. The associative basis of human memory is discussed and two basic properties of the associative process are singled out: the limited number of associative bonds for each idea (9-10), and the small number of step-transitions (usually less than 6) which make up the indirect associative bond between any two ideas. These two properties are used as a basis for constructing analogs of the human memory. An associative network is proposed in which six steps at most are necessary for transition from one point to another (see figure). One of the main disadvantages of this model is that it fails in conversion of indirect to

UDC: 671.142.1

Card 1/3

L 14942-66  
ACC NR: AP5025246

direct association. This phenomenon is a property of human memory. If the direct associative bonds between ideas A and B and between ideas B and C are activated often enough, a direct bond will be formed between ideas A and C. This bond cannot be formed in the proposed associative network. The proposed model requires additional closed connection to transform it into an adequate analog of associative memory. A second model is proposed in which the hierarchical organization of associative memory is represented by a set of tables. These tables are located on various levels with three tables on each level: the first gives the relationship between words in the associa-

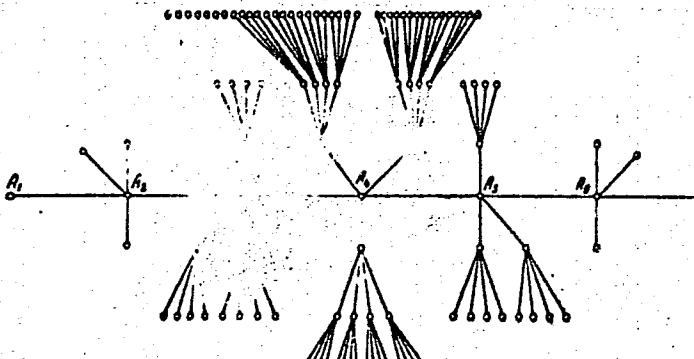


Fig. 1.

Card 2/3

L 14942-66  
ACC NR: AP5025246

tive network, the second gives the coincidence of these words and the third gives the relationship between the words and an emotional index. The tabular model reflects the experimentally observed property of unidirectionality in associative memory. As an example, in word association tests a common response to the word "cup" is "water". However, the response to the word "water" is seldom "cup". This model also accounts for transition from indirect to direct associations. Bonds are "erased" and new bonds are formed when the coefficients of coincidence in the second table rise or fall below a given value. Recommendations are made for checking these models on electronic computers. Orig. art. has: 3 figures.

SUB CODE: 09,06/ SUBM DATE: *None* ORIG REF: 000/ OTH REF: 000

*OC*  
Card 3/3

LJKA, D., Cand Tech Sci -- (diss) "Development of a quick  
acting system for regulating the <sup>velocity</sup> ~~power~~ of arc steel furnaces."  
Mos, 1959, 12 pp (Min of Higher Education USSR. Mos Order of  
Lenin Power Engineering Inst) 150 copies (KL, 28-59, 127)

- 66 -

IONESHESKU, V. [Ionasescu, V.]; IUKA, N. [Iuka, N.]

Study of serum aldolase in muscular diseases. Zhur. nevr. i psikh. 64 no.6:824-828 '64. (MIRA 17:12,

1. Institut nevrologii im. I.P. Pavlova, Bukharest.

LUKA,Simovic,d-r; ALIJA,Ljubovic

Water-borne epidemic of bacillary dysentery in Pojnicica baths.  
Med. arh., Sarajevo 12 no.3:89-93 My-Je '59.

1. Centralni higijenski zavod Sarajevo.  
(DYSENTERY BACILLARY transm.)  
(WATER microbiol.)

RAUDAM, E.I.; LUKA, V.Ya.; PAYMRE, R.I, [Paimre, R.]; KHEYNSOO, E.K.  
[Heiusco, E.]; VERNIK, A.Ya.

Diagnosis of intervertebral disk protrusion. Zhur. nevr.i psich.  
60 no.10:1259-1267 '60. (MIRA 14:1)

1. Kafedra nevrologii Tartuskogo gosudarstvennogo universiteta i  
Tartuskaia respublikanskaya klinicheskaya bol'nitsa.  
(INTERVERTEBRAL DISK...DISLOCATION)

LUKAC, Dusan

Mechanization of kaolin storage and kaolin slurry preparation.  
Papir a celulosa 18 no.8:162-164 Ag'63.

1. Severoslovenske celulozky a papierne, Ruzomberok.

LUKAC, Feodor, prof. d-r

Modern therapy of persistent congenital and traumatic salivary fistulae. Med. arh., Sarajevo 12 no.3:49-56 My-Je '59.

1. Hirurska klinika Medicinskog fakulteta u Sarajevu, sef: prof.  
d-r Blagoje Kovacevic.  
(SALIVARY FISTULA surg.)